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Montana Basin Outlook Report April 1, 2000



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Basin Outlook Reports

and Federal - State - Private Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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Bozeman, Montana

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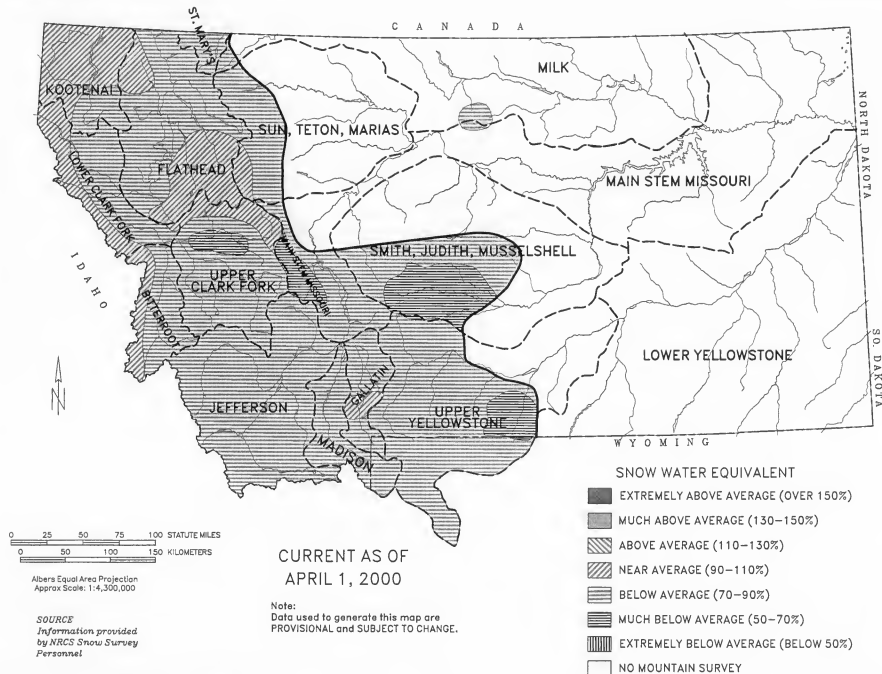
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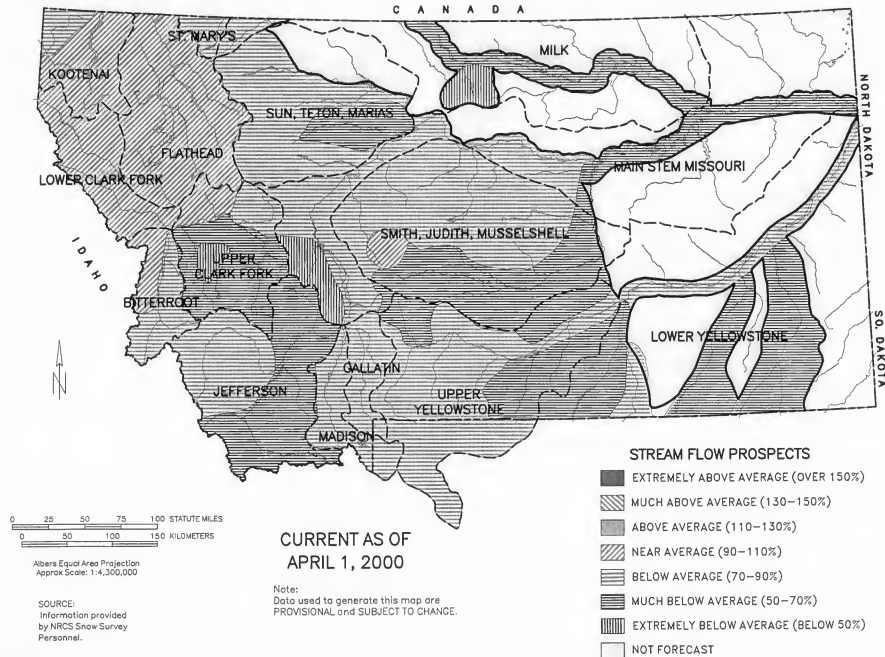
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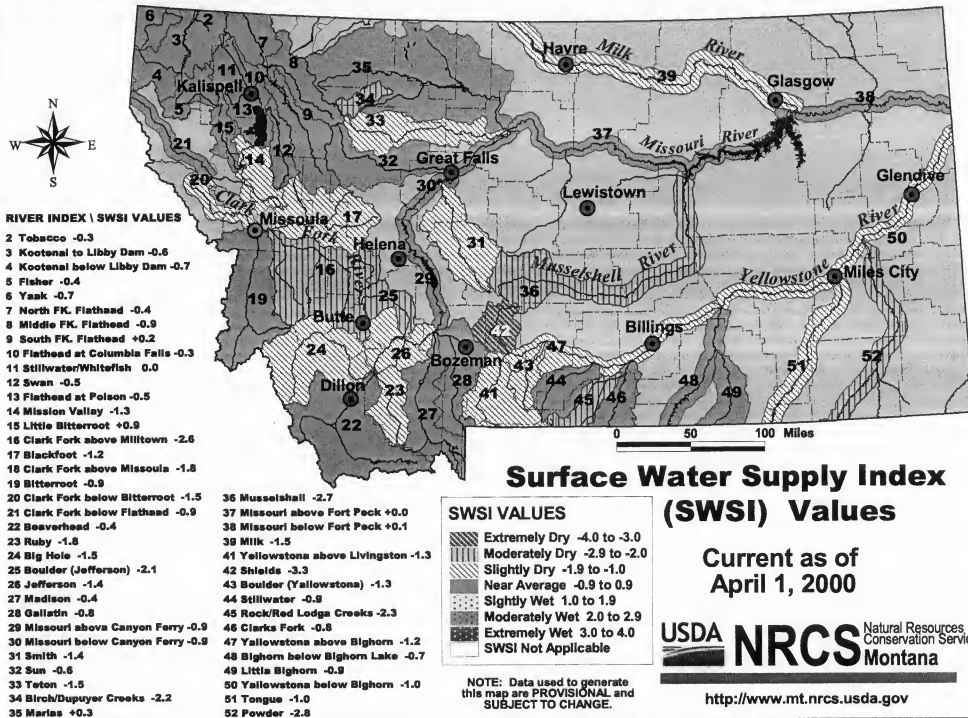


STREAM FLOW PROSPECTS FOR MONTANA

Spring and Summer Period









SUMMARY OF MONTANA SNOTEL AND SNOW COURSE DATA

APRIL 2000

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
ABE LINCOLN	4440	3/28/00	53	18.5	28.1	--
ABUNDANCE LAKE	8800	3/26/00	52	18.2	23.8	20.8
ALBERO LAKE PILLOW	8300	4/01/00	---	12.5	21.1	20.3
AMEROSE	6480	3/28/00	34	9.7	17.4	13.2
ASHLEY LAKE	4000	3/28/00	14	3.7	4.6	5.8
ARCH FALLS	7350	3/30/00	45	11.8	10.9	12.8
ASHLEY DIVIDE	4820	3/28/00	16	4.4	5.7	6.6
BADGER PASS PILLOW	6900	4/01/00	---	30.0	44.8	36.5
BAID RIDGE	7500	3/31/00	36	9.7	11.3	13.4
BANFIELD MTN PILLOW	5600	4/01/00	---	17.8	29.0	20.2
BAREE CREEK	5500	3/27/00	26	9.4	59.8	45.3
BAREE MIDWAY	4600	3/27/00	82	32.7	44.6	35.1
BARKER LAKES PILLOW	8250	4/01/00	---	9.6	16.2	15.4
BASIN CREEK PILLOW	7180	4/01/00	---	7.4	9.0	8.7
BASSOO PEAK	5150	3/30/00	31	8.2	9.8	11.3
BEAGLE SPGS PILLOW	8850	4/01/00	---	9.2	12.1	8.4
BEAR BASIN	8150	3/29/00	62	20.6	18.2	21.4
BEAVER CREEK PILLOW	7850	4/01/00	---	16.2	20.0	18.3
BERRY MEADOW	7000	3/29/00	18	4.4	7.0	8.0
BIG CREEK	6750	3/27/00	97	37.3	43.6	45.7
BIG SNOWY	7150	3/31/00	62	17.4	18.2	22.4
BISSON CREEK PILLOW	4920	4/01/00	---	10.0	9.0	10.2
BLACK BEAR PILLOW	7950	4/01/00	---	36.6	50.5	38.5
BLACK MOUNTAIN	7750	3/29/00	50	13.6	14.0	16.3
BLACK PINE PILLOW	7100	4/01/00	---	9.9	15.3	12.7
BLACKTAIL	5650	3/28/00	40	13.2	15.6	14.2
BLOODY DICK PILLOW	7550	4/01/00	---	11.6	14.3	12.6
BLUE LAKE	5900	3/27/00	51	18.6	30.0	25.3
BOTS SOTS	7750	3/28/00	30	6.9	5.0	8.2
BOULDER MTN PILLOW	7950	4/01/00	---	16.3	22.7	20.6
BOX CANYON PILLOW	6700	4/01/00	---	9.9	12.1	10.3
BOXELDER CREEK	5100	4/05/00	27	7.3	9.3	8.3
BRACKETT CR PILLOW	7320	4/01/00	---	20.4	24.5	21.2
BRANHAM LAKES	8850	3/28/00	76	29.2	24.0	30.2
BRISTOW CREEK	3900	3/29/00	25	8.9	15.1	9.4
BRUSH CREEK TIMBER	5000	3/30/00	24	6.8	7.0	9.5
BULL MOUNTAIN	6600	3/31/00	16	5.5	6.8	6.4
CABIN CREEK	5200	3/27/00	24	6.9	5.6	6.2
CALL ROAD	8050	3/26/00	31	8.2	9.8	12.4
CALVERT CR PILLOW	6430	4/01/00	---	9.1	10.7	8.9
CAMP MISERY	6400	4/01/00	---	50.4E	52.4	49.0
CAMP SENIA	7890	3/30/00	28	5.7	3.7	6.6
CARROT BASIN PILLOW	9000	4/01/00	---	24.5	32.2	28.3
CARTER CREEK	7400	3/27/00	21	5.8	6.6	5.9
CEDAR GROVE	3760	3/30/00	31	10.8	17.3	12.2
CHESSMAN RESERVOIR	6200	3/28/00	5	1.6	1.4	3.9
CHICKEN CREEK	4060	3/30/00	44	16.9	19.6	14.0
CLOVER MDW PILLOW	8800	4/01/00	---	15.8	18.1	18.6
COLE CREEK PILLOW	7850	4/01/00	---	11.2	10.4	17.3
COLLEY CREEK	6300	3/30/00	32	8.3	7.5	8.9
COMBINATION PILLOW	5600	4/01/00	---	3.4	4.6	5.8
COPPER BOTTOM PILLOW	5200	4/01/00	---	11.5	14.3	11.7
COPPER CAMP PILLOW	6950	4/01/00	---	29.9	45.5	34.9
COPPER CREEK	5700	3/26/00	36	14.8	14.5	14.2
COPPER MOUNTAIN	7700	4/01/00	32	11.6	10.6	11.4
COTTONWOOD CREEK	6400	3/29/00	30	7.8	8.0	8.8
COYOTE HILL	4200	3/30/00	25	8.8	10.2	9.5
CREVICE MOUNTAIN	8400	3/28/00	30	9.2	10.0	10.9

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
CRYSTAL LAKE PILLOW	6050	4/01/00	---	12.7	10.3	12.8
DAD CREEK LAKE	8400	3/26/00	45	13.0	13.4	15.1
DAISY PEAK	7600	3/28/00	26	6.4	10.3	10.6
DAISY PEAK PILLOW	7600	4/01/00	---	8.8	11.7	13.4
DAISY PEAK	7600	3/28/00	26	6.4	10.3	10.6
DALY CREEK PILLOW	5780	4/01/00	---	9.5	13.8	11.9
DARKHORSE LK. PILLOW	8700	4/01/00	---	28.8	32.1	33.7
DAVIS CREEK	5400	3/29/00	62	23.1	37.0	24.3
DEADMAN CR PILLOW	6450	4/01/00	---	11.6	10.5	10.2
DEADMAN CREEK	6450	3/30/00	42	11.0	8.8	11.3
DESERT MOUNTAIN	5600	3/27/00	40	14.2	15.8	15.5
DISCOVERY BASIN	7050	3/28/00	31	8.2	9.6	11.3
DIVIDE PILLOW	7800	4/01/00	---	9.0	10.6	11.3
DIX HILL	6400	4/02/00	28	9.9	8.4	11.3
DUPUYER CREEK PILLOW	5750	4/01/00	---	7.2	12.7	12.9
EAGLE CREEK	7000	3/28/00	34	11.2	14.0	14.4
EAST FORK R.S.	5400	3/23/00	18	5.6	4.4	5.6
EL DORADO MINE	7800	3/25/00	48	15.2	20.5	21.6
ELK HORN SPRINGS	7800	3/26/00	30	8.2	10.5	9.3
ELK PEAK	8000	3/27/00	32	9.0	17.4	17.3
EMERY CREEK PILLOW	4350	4/01/00	---	15.3	16.1	16.3
FATTY CREEK	5500	3/27/00	63	21.4	25.1	24.3
FISH CREEK	8000	3/30/00	31	8.8	11.4	9.9
FISHER CREEK PILLOW	9100	4/01/00	---	31.8	40.1	36.1
FIVE-BULL	5700	3/24/00	22	5.8	6.8	6.3
FLATTOP MTN PILLOW	6300	4/01/00	---	41.4	58.8	47.1
FLEECER RIDGE	7500	3/31/00	30	10.0	13.2	11.3
FOOLHEN	8280	3/26/00	41	12.4	17.2	17.1
FOREST LAKE	6400	3/28/00	31	9.6	13.0	12.6
FOUR MILE	6900	3/27/00	24	7.1	7.9	8.9
FOURTH OF JULY	3450	3/28/00	19	7.6	13.5	7.4
FRED BURR PASS	8000	3/27/00	58	20.8	25.2	25.4
FREIGHT CREEK	6000	3/27/00	34	11.7	19.8	15.5
FROHNER MDWS PILLOW	6480	4/01/00	---	6.1	7.2	8.7
GARVER CREEK PILLOW	4250	4/01/00	---	9.5	13.3	10.1
GARVER CREEK	4250	3/29/00	27	9.1	14.6	10.2
GIBBONS PASS	7100	3/23/00	57	20.0	26.0	23.2
GOAT MOUNTAIN	7000	3/28/00	31	9.0	11.1	10.5
GOLD CREEK LAKE	7200	3/25/00	33	10.0	17.4	15.9
GOLD STONE	8100	3/26/00	46	14.2	18.0	17.4
GRASSHOPPER	7000	3/27/00	11	2.8	5.8	6.2
GRAVE CRK PILLOW	4300	4/01/00	---	15.5	16.8	16.7
GRIFFIN CR DIVIDE	5150	3/29/00	28	8.6	10.0	11.2
GUNSIGHT LAKE	6300	3/27/00	95	37.4	47.6	40.0
HAND CREEK PILLOW	5030	4/01/00	---	12.1	13.4	13.3
HAWKINS LAKE PILLOW	6450	4/01/00	---	20.4	39.4	29.0
HAYMAKER	8050	3/29/00	33	8.8	11.8	12.7
HEART LAKE TRAIL	4800	3/30/00	54	19.4	27.9	21.6
HEBGEN DAM	6550	3/26/00	37	12.0	12.2	12.1
HELL ROARING DIVIDE	5770	3/29/00	84	27.9	33.8	31.0
HERRIG JUNCTION	4850	3/30/00	66	25.3	34.2	26.0
HOLBROOK	4530	3/29/00	32	9.6	9.2	9.0
HOODOO BASIN	6050	3/30/00	115	42.8	61.3	51.0
HOODOO BASIN PILLOW	6050	4/01/00	---	39.8	61.4	47.0
INDEPENDENCE	7850	3/30/00	42	13.9	19.1	18.3
INTERGAARD	6450	3/29/00	24	6.5	7.2	8.6
JAHNKE LAKE TRAIL	7200	3/26/00	32	8.8	8.4	10.0
JOHNSON PARK	6450	3/28/00	13	3.8	3.4	6.9
KEELER CREEK	3300	3/28/00	40	17.4	25.0	10.8
KINGS HILL	7500	3/30/00	50	12.9	12.7	14.5
KISHENEHN	3890	3/31/00	19	5.9	8.1	7.0
KRAFT CREEK PILLOW	4750	4/01/00	---	15.0	13.5	15.3
LAKE CREEK	6100	3/26/00	30	8.4	8.6	8.5
LAKEVIEW CANYON	6930	3/31/00	30	8.1	13.3	12.3

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
LAKEVIEW RDG. PILLOW	7400	4/01/00	---	9.3	15.0	13.0
LEMHI RIDGE PILLOW	8100	4/01/00	---	9.2	10.6	11.1
LICK CREEK PILLOW	6860	4/01/00	---	11.0	11.0	14.4
LITTLE PARK	7400	3/29/00	47	14.8	14.4	16.3
LOGAN CREEK	4300	3/30/00	22	6.0	6.3	7.1
LONE MOUNTAIN PILLOW	8880	4/01/00	---	17.5	22.2	19.2
LOST HORSE	5940	3/22/00	77	27.6	37.4	32.3
LOST SOUL	4800	3/29/00	39	12.7	22.1	15.3
LOWER TWIN PILLOW	7900	4/01/00	---	14.7	17.4	18.6
LUBRECHT PILLOW	4680	4/01/00	---	.9	3.3	5.1
LUBRECHT FOREST NO 3	5450	3/29/00	17	5.1	5.0	6.8
LUBRECHT FOREST NO 4	4650	3/29/00	2	.7	1.0	2.1
LUBRECHT FOREST NO 6	4040	3/28/00	3	.8	1.2	2.3
LUBRECHT HYDROPLT	4200	3/30/00	9	2.7	5.0	4.2
MADISON PLT PILLOW	7750	4/01/00	---	19.9	31.3	24.8
MANY GLACIER PILLOW	4900	4/01/00	---	12.8	17.9	16.6
MARIAS PASS	5250	3/30/00	42	15.2	20.7	17.4
MAYNARD CREEK	6210	3/29/00	36	11.2	14.5	15.1
MIDDLE MILL CREEK	7850	3/28/00	47	15.4	13.6	16.6
MILL CREEK	7500	3/30/00	45	12.1	13.0	13.7
MINERAL CREEK	4000	3/30/00	53	20.2	22.2	17.5
MONUMENT PK PILLOW	8850	4/01/00	---	19.6	26.1	21.4
MOSS PEAK PILLOW	6780	4/01/00	---	34.8	42.2	38.4
MT LOCKHART PILLOW	6400	4/01/00	---	18.6	27.2	21.5
MUDD LAKE	7650	4/03/00	50	19.2	25.2	20.0
MULE CREEK PILLOW	8300	4/01/00	---	16.2	18.0	16.2
NEVADA RIDGE PILLOW	7020	4/01/00	---	15.8	20.8	14.2
NEW WORLD	6900	3/30/00	47	12.5	12.9	15.7
NEWTON MOUNTAIN	5600	3/27/00	86	35.1	48.8	35.6
NEZ PERCE CMP PILLOW	5650	4/01/00	---	14.7	16.9	15.1
NEZ PERCE CREEK	6600	4/01/00	15	6.0	6.5	7.1
NEZ PERCE PASS	6570	3/30/00	49	17.3	15.8	19.2
NOISY BASIN PILLOW	6040	4/01/00	---	41.9	45.3	40.7
N.F. ELK CR PILLOW	6250	4/01/00	---	12.2	13.4	13.2
NF JOCKO PILLOW	6330	4/01/00	---	43.4	51.4	46.7
N.E. ENTRANCE PILLOW	7350	4/01/00	---	10.9	11.7	9.2
NOTCH	8500	3/26/00	45	13.0	17.8	16.4
OPHIR PARK	7150	4/02/00	44	13.8	16.8	18.0
PALISADE CREEK	8250	4/03/00	70	28.7	37.1	29.9
PETERSON MEADOWS	7200	3/27/00	27	7.2	10.1	10.8
PETERSON MDW PILLOW	7200	4/01/00	---	7.9	11.4	11.0
PICKET PIN LOWER	6200	3/29/00	13	2.9	.0	3.0
PICKET PIN MIDDLE	7250	3/29/00	24	6.8	7.3	13.4
PICKET PIN UPPER	8100	3/29/00	48	16.0	17.2	20.9
PICKFOOT CRK PILLOW	6650	4/01/00	---	8.7	10.0	11.0
PIKE CREEK PILLOW	5930	4/01/00	---	23.4	35.5	27.9
PIPESTONE PASS	7200	4/02/00	17	5.2	6.4	5.9
PLACER BASIN PILLOW	8830	4/01/00	---	17.9	18.1	19.1
POORMAN CREEK	5100	3/30/00	85	35.9	47.3	34.4
PORCUPINE PILLOW	6500	4/01/00	---	5.7	5.2	7.4
POTOMAGETON PARK	7150	3/27/00	42	13.9	14.3	14.6
RED MOUNTAIN	6000	3/27/00	47	15.8	25.6	18.9
RED TOP	5260	3/27/00	73	27.7	39.2	29.0
REVAIS CREEK	4800	3/29/00	0	.0	.0	2.1
ROCK CREEK	5600	3/31/00	34	9.2	6.4	10.6
ROCK CREEK MEADOW	8160	3/28/00	61	18.4	22.4	22.0
ROCKER PEAK PILLOW	8000	4/01/00	---	10.8	13.8	15.3
ROCKY BOY PILLOW	4700	4/01/00	---	4.0	3.3	4.9
ROCKY BOY	4700	3/30/00	9	1.6	1.5	4.4
SACAJAWEA	6550	3/29/00	37	12.4	16.4	14.6
SADDLE MTN PILLOW	7900	4/01/00	---	19.9	29.8	26.1
SHORT CREEK PILLOW	7000	4/01/00	---	6.0	6.0	6.3
SHOWER FALLS PILLOW	8100	4/01/00	---	21.7	21.9	23.8
SKALKAHO PILLOW	7260	4/01/00	---	21.4	31.2	24.9

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
SLAG-A-MELT LAKE	8750	3/26/00	65	22.6	25.9	25.8
SLIDE ROCK MOUNTAIN	7100	3/25/00	37	11.0	21.5	16.7
SMUGGLER MINE	6960	3/28/00	32	8.5	8.0	10.5
S.F. SHIELDS PILLOW	8100	4/01/00	---	13.4	18.2	17.9
SPOTTED BEAR MTN.	7000	3/27/00	39	13.9	12.8	14.9
SPUR PARK PILLOW	8100	4/01/00	---	18.9	25.2	22.2
SLEEPING WOMAN PILL	6150	4/01/00	---	15.2	21.4	15.6
STAHL PEAK PILLOW	6030	4/01/00	---	33.3	43.7	35.1
STAHL PEAK	6030	3/30/00	104	39.2	42.9	39.7
STEMPLE PASS	6600	3/29/00	36	10.7	12.4	10.6
STORM LAKE	7780	3/27/00	34	10.4	15.5	14.0
STRYKER BASIN	6180	3/30/00	87	30.6	39.2	34.6
STUART MOUNTAIN	7400	3/27/00	76	29.9	39.2	32.9
STUART MOUNTAIN PILL	7400	4/01/00	---	30.6	40.8	30.9
SUCKER CREEK	3960	3/30/00	3	.4	.5	.4
TAYLOR ROAD	4080	3/30/00	3	.5	.6	2.2
TEN MILE LOWER	6600	3/28/00	20	4.6	4.4	7.8
TEN MILE MIDDLE	6800	3/28/00	30	7.2	9.7	12.2
TEPEE CREEK PILLOW	8000	4/01/00	---	13.6	14.9	13.4
TIMBERLINE CREEK	8850	3/30/00	54	13.4	11.5	14.8
TIZER BASIN PILLOW	6840	4/01/00	---	8.0	9.0	12.0
TRAIL CREEK	7090	3/26/00	28	7.2	9.0	8.7
TRINKUS LAKE	6100	3/27/00	102	41.6	45.2	43.4
TRUMAN CREEK	4060	3/28/00	11	3.4	3.2	3.5
TV MOUNTAIN	6800	3/27/00	47	15.9	22.2	19.2
TWELVEMILE PILLOW	5600	4/01/00	---	17.6	21.1	18.6
TWENTY-ONE MILE	7150	4/01/00	45	15.2	21.1	17.4
TWIN CREEKS	3580	3/27/00	32	12.4	8.4	10.3
TWIN LAKES PILLOW	6400	4/01/00	---	40.6	55.0	40.4
UPPER HOLLAND LAKE	6200	3/27/00	94	36.2	35.8	35.4
WALDRON PILLOW	5600	4/01/00	---	11.0	15.5	11.3
WARM SPRINGS PILLOW	7800	4/01/00	---	18.4	23.2	22.3
WEASEL DIVIDE	5450	3/31/00	83	32.8	41.8	33.8
WEST YELLOWSTONE	6700	4/01/00	30	9.6	13.6	11.6
WEST YELL'ST PILLOW	6700	4/01/00	---	9.9	14.7	11.6
WHISKEY CREEK PILLOW	6800	4/01/00	---	15.0	20.8	17.5
WHITE MILL PILLOW	8700	4/01/00	---	24.1	27.8	25.1
WHITE PINE RIDGE	8850	3/26/00	23	5.0	8.4	5.8
WILLOW CREEK	6500	3/28/00	22	6.2	2.2	9.5
WOOD CREEK PILLOW	5960	4/01/00	---	8.5	11.2	12.2
WRONG CREEK	5700	3/26/00	34	10.8	13.6	13.6
WRONG RIDGE	6800	3/26/00	42	14.9	20.6	19.4

Montana Water Supply Outlook Report as of April 1, 2000

Storm patterns during March favored the southern part Montana. Precipitation amounts have been variable but as a whole were below average. Valley temperatures continued to be very mild and were generally ranging from 2 to 5 degrees above average west of the Divide and 2 to 6 degrees above average east of the Divide.

Snowpack

As of APRIL 1, mountain snow water contents were quite variable ranging from well below average to above average. Statewide snowpack is 87 percent of average and 78 percent of last year. West of the Divide snowpack was 89 percent of average and 74 percent of last year. East of the Divide snowpack was 84 percent of average and 82 percent of last year. Several spring storms during March have added snow to the mountains and rain/snow to the valleys. There has been some melting of the snowpack at low mountain elevations but nothing significant at this point. Low to mid elevation snowpack continues to be well below average to below average and mid to high elevation snowpack is below average to near average.

Snowpack extremes were the highest in the Kootenai Mainstem at 102 percent of average and 64 percent of last year, and the lowest in the Musselshell at 66 percent of average and 73 percent of last year. Several river basins have snow water contents setting new record low values or values in the bottom five or record. These basins include the Headwaters Missouri Mainstem, Jefferson, Musselshell, Teton, Upper Yellowstone, and Lower Yellowstone.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	89	75
KOOTENAI	90	64
FLATHEAD	92	83
UPPER CLARK FORK	82	77
BITTERROOT	90	75
LOWER CLARK FORK	88	64
MISSOURI	84	80
MISSOURI HEADWATERS	86	82
JEFFERSON	84	81
MADISON	86	77
GALLATIN	88	87
MISSOURI MAINSTEM	79	78
HEADWATERS MAINSTEM	77	80
SMITH-JUDITH-MUSSELSHELL	78	84
SUN-TETON-MARIAS	81	70
MAINSTEM ABOVE FT. PECK RES	79	77
MILK	77	89
ST. MARY	92	75
ST. MARY & MILK	89	77
YELLOWSTONE	85	84
UPPER YELLOWSTONE	87	84
LOWER YELLOWSTONE (WYOMING)	82	83
WIND	75	70
SHOSHONE	86	71
BIGHORN	87	81
TONGUE	88	107
POWDER	82	99

Precipitation

March mountain and valley precipitation across the state was 83 percent of average and 125 percent of last year, while the water year precipitation was 93 percent of average and 84 percent of last year. West of the Continental Divide, March mountain and valley precipitation was 85 percent of average and 107 percent of last year and the water year precipitation was 100 percent of average and 86 percent of last year. East of the Divide, March mountain and valley precipitation was 82 percent of average and 144 percent of last year and the water year precipitation was 86 percent of average and 81 percent of last year.

RIVER BASIN	MARCH % OF AVERAGE	WATER YEAR % OF AVERAGE
COLUMBIA	85	100
KOOTENAI	107	104
FLATHEAD	74	119
UPPER CLARK FORK	68	89
BITTERROOT	74	96
LOWER CLARK FORK	70	102
MISSOURI	82	86
JEFFERSON	75	83
MADISON	89	87
GALLATIN	99	84
MISSOURI MAINSTEM	63	71
SMITH-JUDITH-MUSSELSHELL	79	82
SUN-TETON-MARIAS	73	100
MILK	110	84
ST. MARY	93	109
YELLOWSTONE	83	86
UPPER YELLOWSTONE	84	88
LOWER YELLOWSTONE (WYOMING) ..	81	86
WIND	93	78
SHOSHONE	71	92
BIGHORN	79	88
TONGUE	81	98
POWDER	76	92

Reservoirs

Major reservoir storages statewide were 100 percent of average and 107 percent of last year. Reservoir storage west of the Continental Divide was 95 percent of average and 107 percent of last year. East of the Continental Divide, reservoir storage was 106 percent of average and 106 percent of last year.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	100	107
KOOTENAI	79	111
FLATHEAD	104	106
UPPER CLARK FORK	114	83
BITTERROOT	72	88
LOWER CLARK FORK	140	103
MISSOURI	104	103
JEFFERSON	112	103
MADISON	119	115
GALLATIN	94	86
MISSOURI MAINSTEM	99	100
SMITH-JUDITH-MUSSELSHELL	101	85
SUN-TETON-MARIAS	114	106
MILK	73	91
ST. MARY	68	95
YELLOWSTONE	113	119
UPPER YELLOWSTONE	104	115
LOWER YELLOWSTONE	114	119

Streamflow

Streamflows are expected to be well below average to near average. Surface water supplies should be adequate in most areas if there is average to above average spring rain. There are areas in the Upper Clark Fork, Lower Madison, Musselshell, Milk, and Yellowstone that will need above average spring rain to insure adequate surface water supplies through the summer.

West of the Continental Divide, averaged streamflow forecast range between 78 and 97 percent of average and east of the Continental Divide, range between 66 and 87 percent of average.

Below are averaged river basin streamflow forecast summaries for the period April 1 through July 31. THESE FORECASTS ASSUME NEAR NORMAL SPRING CONDITIONS AND DO NOT ACCOUNT FOR WELL BELOW AVERAGE (70% or less) OR WELL ABOVE AVERAGE (130% or more) SNOWMELT OR SPRING RAIN. Specific forecast probabilities are available in each individual River Basin Report.

RIVER BASIN	April-July		April-July
	THIS YEAR		LAST YEAR
	% OF AVERAGE		% OF AVERAGE
COLUMBIA	79 to 98	104 to 122	
KOOTENAI	87 to 106	112 to 129	
FLATHEAD	87 to 101	104 to 118	
UPPER CLARK FORK	59 to 87	96 to 125	
BITTERROOT	79 to 97	111 to 129	
LOWER CLARK FORK	84 to 98	95 to 107	
MISSOURI	61 to 90	96 to 126	
JEFFERSON	52 to 84	90 to 122	
MADISON	80 to 94	109 to 123	
GALLATIN	78 to 97	83 to 103	
MISSOURI MAINSTEM	64 to 93	98 to 126	
SMITH-JUDITH-MUSSELSHELL ..	62 to 93	94 to 130	
SUN-TETON-MARIAS	67 to 102	109 to 143	
MILK	24 to 64	92 to 138	
ST. MARY	73 to 85	105 to 117	
YELLOWSTONE	63 to 86	90 to 112	
UPPER YELLOWSTONE	71 to 91	97 to 116	
LOWER YELLOWSTONE	55 to 82	83 to 108	

Surface Water Supply Index

The Surface Water Supply Index (SWSI) is an indicator of surface water supply conditions for the spring and summer months. Water users that rely on mountain precipitation can use the index to evaluate seasonal surface water supplies. The SWSI accounts for mountain snowpack, mountain precipitation, streamflow, reservoir storage, and soil moisture.

SWSI RATING	SURFACE WATER CONDITION
+3.0 to +4.0	Extremely Wet
+2.0 to +3.0	Moderately Wet
+1.0 to +2.0	Slightly Wet
-1.0 to +1.0	Near Average
-1.0 to -2.0	Slightly Dry
-2.0 to -3.0	Moderately Dry
-3.0 to -4.0	Extremely Dry

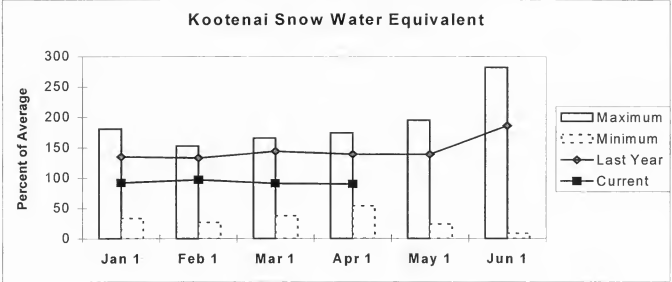
SWSI

Basin

+0.8	Kootenai River at Ft. Steele (Kootenai in Canada)
-0.3	Tobacco River
-0.6	Kootenai Ft. Steele to Libby Dam
-0.7	Kootenai River below Libby Dam
-0.4	Fisher River
-0.7	Yaak River
-0.4	North Fork Flathead River
-0.9	Middle FORK Flathead River
+0.2	South Fork Flathead River
-0.3	Flathead River at Columbia Falls
0.0	Stillwater/Whitefish Rivers
-0.5	Swan River
-0.5	Flathead River at Polson
-1.3	Mission Valley
+0.9	Little Bitterroot River
-2.6	Clark Fork River above Milltown
-1.2	Blackfoot River
-1.8	Clark Fork River above Missoula
-0.9	Bitterroot River
-1.5	Clark Fork River below Bitterroot River
-0.9	Clark Fork River below Flathead River
-0.4	Beaverhead River
-1.8	Ruby River
-1.5	Big Hole River
-2.1	Boulder River (Jefferson)
-1.4	Jefferson River
-0.4	Madison River
-0.8	Gallatin River
-0.9	Missouri River above Canyon Ferry
-0.9	Missouri River below Canyon Ferry
-1.4	Smith River
-0.6	Sun River
-1.5	Teton River
-2.2	Birch/Dupuyer Creeks
+0.3	Marias River
-2.7	Musselshell River
0.0	Missouri River above Ft. Peck
+0.1	Missouri River below Ft. Peck
-1.5	Milk River
-1.3	Yellowstone River above Livingston
-3.3	Shields River
-1.3	Boulder River (Yellowstone)
-0.9	Stillwater River
-2.3	Rock/Red Lodge Creeks
-0.8	Clarks Fork River
-1.2	Yellowstone River above Bighorn River
-0.7	Bighorn River below Bighorn Lake
-0.9	Little Bighorn River
-1.0	Yellowstone River below Bighorn River
-1.0	Tongue River
-2.8	Powder River

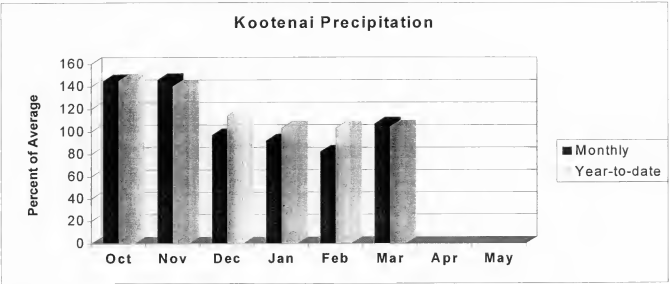
Kootenai River Basin in Montana

Snowpack conditions in the Kootenai River Basin were below average. Snow water content was 90 percent of average and 64 percent of last year.



January maximum swe was established in 1997 and minimum was in 1977; February maximum swe was in 1997 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1974 and minimum swe was in 1977; May maximum swe was in 1974 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during March was 114 percent of average and 105 percent of last year. Valley precipitation during March was 60 percent of average and 101 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 104 percent of average and 85 percent of last year.



Lake Koocanusa storage was 79 percent of average and 111 percent of last year.

Surface Water Supply Index (SWSI) was +0.8 in the Kootenai at Ft. Steele (Kootenai in Canada); -0.3 in the Tobacco River; -0.6 in the Kootenai Ft. Steele to Libby Dam; -0.7 in the Kootenai River below Libby Dam; -0.4 in the Fisher River; and -0.7 in the Yaak River.

KOOTENAI RIVER BASIN in Montana
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(1000AF)	
TOBACCO RIVER nr Eureka	APR-JUL	88	110	125	94	140	162	133
	APR-SEP	98	123	140	95	157	182	147
LIBBY RES Inflow (1,2)	APR-JUL	5112	5874	6220	108	6566	7328	5779
	APR-SEP	5990	6884	7290	108	7696	8590	6772
FISHER RIVER nr Libby	APR-JUL	150	189	215	92	241	280	234
	APR-SEP	162	202	230	92	258	298	250
YAAK RIVER nr Troy	APR-JUL	313	374	415	86	456	517	483
	APR-SEP	329	392	435	86	478	541	505
KOOTENAI at Leonia (1,2)	APR-JUL	6245	7191	7620	106	8049	8995	7199
	APR-SEP	7180	8267	8760	106	9253	10340	8275

KOOTENAI RIVER BASIN in Montana					KOOTENAI RIVER BASIN in Montana			
Reservoir Storage (1000 AF) - End of March					Watershed Snowpack Analysis - April 1, 2000			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	Year	This Year	Last Year	Avg			Last Yr	Average
LAKE KOOCANUSA	5748.0	1692.0	1528.0	2141.0	KOOTENAY in CANADA	24	75	94
					KOOTENAI MAINTSTEM	8	66	106
					TOBACCO	3	80	95
					FISHER	4	52	59
					YAAK	8	64	90
					KOOTENAI in MONTANA	22	64	90
					KOOTENAI ab BONNERS FERRY	46	68	92

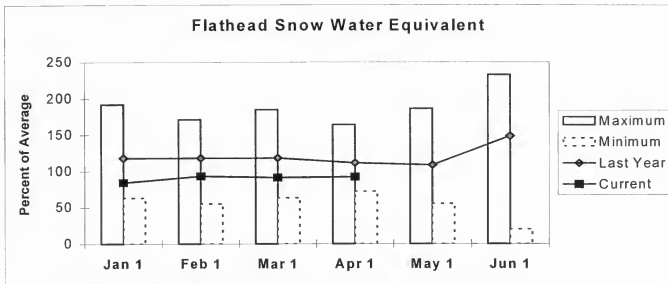
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

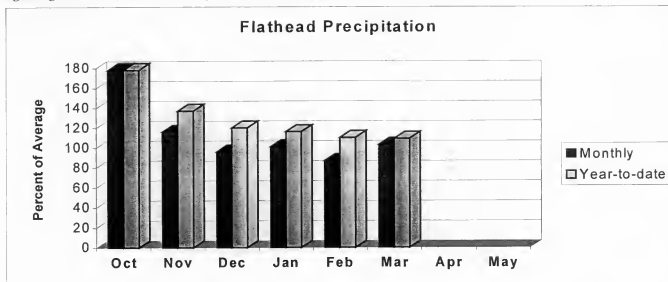
Flathead River Basin

Snowpack conditions in the Flathead River Basin were slightly below average. Snow water content was 92 percent of average and 83 percent of last year.



January maximum swe was established in 1997 and minimum was in 1988; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1992; May maximum swe was in 1972 and minimum was in 1992; and June maximum swe was in 1974 and minimum was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during March was 103 percent of average and 109 percent of last year. Valley precipitation during March was 74 percent of average and 119 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 109 percent of average and 97 percent of last year.



Combined Camas reservoir storage was 127 percent of average and 80 percent of last year; combined Mission Valley reservoir storage was 71 percent of average and 104 percent of last year; Hungry Horse storage was 109 percent of average and 114 percent of last year; and Flathead Lake storage was 91 percent of average and 87 percent of last year.

Surface Water Supply Index (SWSI) was -0.4 in the North Fork Flathead River; -0.9 in the Middle Fork Flathead River; +0.2 in the South Fork Flathead River; -0.3 in the Flathead River at Columbia Falls; 0.0 in the Stillwater/Whitefish Rivers; -0.5 in the Swan River; -0.5 in the Flathead River at Polson; -1.3 in the Mission Valley; and +0.9 in the Little Bitterroot River.

FLATHEAD RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF) (% AVG.)		(1000AF)	(1000AF)	
NF FLATHEAD nr Columbia Falls	APR-JUL	1323	1470	1570	95	1670	1817	1662
	APR-SEP	1467	1630	1740	95	1850	2013	1836
MF FLATHEAD nr West Glacier	APR-JUL	1312	1430	1510	92	1590	1708	1638
	APR-SEP	1427	1560	1650	92	1740	1873	1788
HUNGRY HORSE Reservoir Inflow (1,2)	APR-JUL	1609	1857	1970	96	2083	2331	2051
	APR-SEP	1626	1945	2090	96	2235	2554	2184
FLATHEAD at Columbia Falls (2)	APR-JUL	4372	4865	5200	95	5535	6028	5482
	APR-SEP	4669	5253	5650	95	6047	6631	5960
STILLWATER nr Whitefish	APR-JUL	121	156	180	95	204	239	189
	APR-SEP	135	174	200	96	226	265	209
WHITEFISH nr Kalispell	APR-JUL	70	85	95	91	105	120	104
	APR-SEP	76	93	105	91	117	134	116
SWAN RIVER nr Bigfork	APR-JUL	445	511	555	95	599	665	583
	APR-SEP	519	585	630	95	675	741	665
FLATHEAD Lake Inflow (1,2)	APR-JUL	5042	5715	6020	94	6325	6998	6390
	APR-SEP	5395	6176	6530	94	6884	7665	6926

FLATHEAD RIVER BASIN Reservoir Storage (1000 AF) - End of March					FLATHEAD RIVER BASIN Watershed Snowpack Analysis - April 1, 2000			
Reservoir	Usable Capacity	*** This Year	Usable Storage Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	
							Last Yr	Average
CAMS (4)	45.2	30.2	37.8	23.7	NF FLATHEAD in CANADA	3	71	84
MISSION VALLEY (8)	100.0	29.1	28.1	40.9	NF FLATHEAD in MONTANA	9	78	93
HUNGRY HORSE	3451.0	2226.0	1946.0	2046.0	MIDDLE FORK FLATHEAD	7	74	88
FLATHEAD LAKE	1791.0	687.1	792.2	751.9	SOUTH FORK FLATHEAD	8	95	99
					STILLWATER-WHITEFISH	10	82	89
					SWAN	8	90	94
					MISSION VALLEY	5	86	88
					LITTLE BITTERROOT-ASHLEY	6	85	79
					JOCKO	5	77	92
					FLATHEAD in MONTANA	42	83	92
					FLATHEAD RIVER BASIN	45	82	92

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

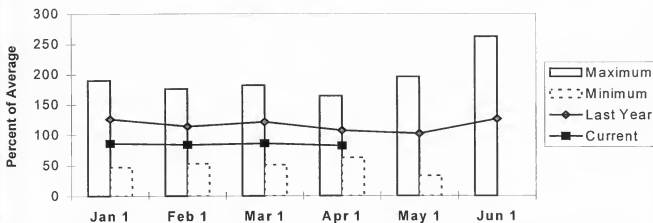
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Clark Fork River Basin

Snowpack conditions in the Upper Clark Fork River Basin were below average. Snow water content was 82 percent of average and 77 percent of last year.

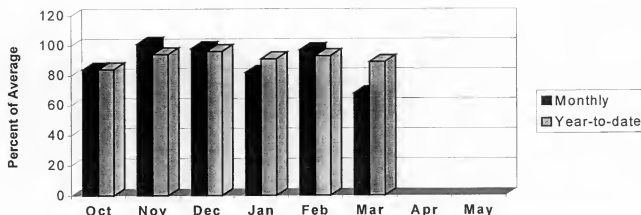
Upper Clark Fork Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1994; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1975 and minimum swe was in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during March was 69 percent of average and 89 percent of last year. Valley precipitation during March was 57 percent of average and 155 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 89 percent of average and 79 percent of last year.

Upper Clark Fork Precipitation



Lower Willow Creek storage was 122 percent of average and 88 percent of last year; and Nevada Creek storage was 111 percent of average and 82 percent of last year.

Surface Water Supply Index (SWSI) was -2.6 in the Clark Fork River above Milltown; -1.2 in the Blackfoot River; and -1.8 in the Clark Fork River above Missoula.

UPPER CLARK FORK RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
WARM SPRINGS CK at Anaconda	APR-JUL	11.8	19.7	25	66	30	38	38
	APR-SEP	16.0	25	31	66	37	46	47
LITTLE BLACKFOOT nr Garrison	APR-JUL	18.3	40	55	66	70	92	83
	APR-SEP	20	44	60	67	76	100	89
FLINT CREEK nr Southern Cross	APR-JUL	3.1	7.0	9.6	68	12.2	16.1	14.2
	APR-SEP	3.0	7.8	11.0	66	14.2	19.0	16.7
FLINT CREEK blw Boulder Ck	APR-JUL	14.5	29	39	68	49	64	57
	APR-SEP	21	38	50	69	62	79	73
LOWER WILLOW CK RES Inflow	APR-JUL	2.5	3.1	5.6	40	8.1	11.7	14.0
	APR-SEP	3.0	3.7	6.3	43	8.9	12.7	14.8
MF ROCK CREEK nr Philipsburg	APR-JUL	39	48	55	83	62	71	66
	APR-SEP	44	55	62	84	69	80	74
ROCK CREEK nr Clinton	APR-JUL	117	166	200	68	234	283	296
	APR-SEP	133	188	225	68	262	317	333
NEVADA CREEK nr Finn	APR-JUL	6.9	12.0	15.5	81	19.0	24	19.1
	APR-SEP	7.9	13.3	17.0	81	21	26	21
CLEARWATER nr Clearwater	APR-JUL	115	142	160	93	178	205	172
	APR-SEP	124	151	170	94	189	216	181
BLACKFOOT RIVER nr Bonner	APR-JUL	563	686	770	92	854	977	835
	APR-SEP	633	765	855	92	945	1077	926
CLARK FORK abv Milltown	APR-JUL	202	353	455	70	557	708	652
	APR-SEP	247	416	530	70	644	813	755
CLARK FORK abv Missoula	APR-JUL	899	1090	1220	82	1350	1541	1487
	APR-SEP	1026	1237	1380	82	1523	1734	1681

UPPER CLARK FORK RIVER BASIN					UPPER CLARK FORK RIVER BASIN			
Reservoir Storage (1000 AF) - End of March					Watershed Snowpack Analysis - April 1, 2000			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GEORGETOWN LAKE		NO REPORT			CLARK FORK ab FLINT CREEK	16	80	78
LOWER WILLOW CREEK	4.9	2.8	3.2	2.3	FLINT CREEK	7	76	76
NEVADA CREEK	12.6	8.1	9.9	7.3	ROCK CREEK	6	66	81
					CLARK FORK ab BLACKFOOT	25	75	79
					BLACKFOOT	16	80	90
					UPPER CLARK FORK BASIN	39	77	82

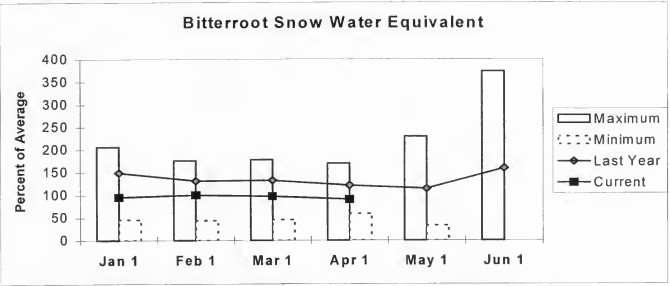
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

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(2) - The value is natural volume - actual volume may be affected by upstream water management.

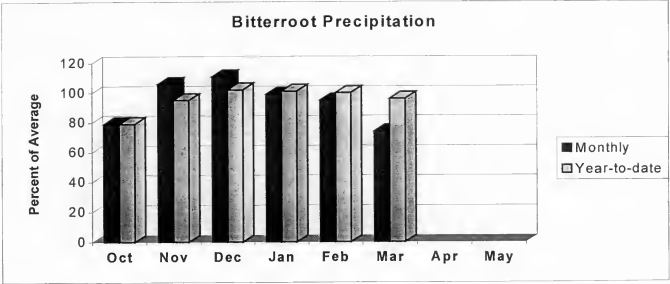
Bitterroot River Basin

Snowpack conditions in the Bitterroot River Basin were slightly below average. Snow water content was 90 percent of average and 75 percent of last year.



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1977; May maximum swe was in 1972 and minimum swe was in 1987; and June maximum swe was 1972 and 1974 and minimum swe was in 1987 and 1992. Average is for the period 1961 through 1990.

Mountain precipitation during March was 78 percent of average and 86 percent of last year. Valley precipitation during March was 40 percent of average and 56 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 96 percent of average and 79 percent of last year.



Painted Rocks Lake storage was 77 percent of average and 91 percent of last year and Como storage was 68 percent of average and 85 percent of last year.

Surface Water Supply Index (SWSI) was -0.9 in the Bitterroot River.

BITTERROOT RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions =====		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
WF BITTERROOT nr Conner (2)	APR-JUL	90	114	130	86	146	170	152
	APR-SEP	99	126	145	87	164	191	166
BITTERROOT nr Darby	APR-JUL	305	371	415	85	459	525	491
	APR-SEP	342	409	455	84	501	568	540
COMO RESERVOIR Inflow	APR-JUL	66	74	80	101	86	94	79
	APR-SEP	68	77	83	100	89	98	83
SKALKAGO CK nr Hamilton	APR-JUL	27	34	39	85	44	51	46
	APR-SEP	33	41	46	87	51	59	53
BITTERROOT at Missoula	APR-JUL	884	1007	1090	84	1173	1296	1300
	APR-SEP	959	1091	1180	83	1269	1401	1420

BITTERROOT RIVER BASIN					BITTERROOT RIVER BASIN			
Reservoir Storage (1000 AF) - End of March					Watershed Snowpack Analysis - April 1, 2000			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	Year	This Year	Last Year	Avg			Last Yr	Average
PAINTED ROCKS LAKE	31.7	10.5	11.6	13.6	WEST FORK BITTERROOT	3	83	86
COMO	34.9	10.5	12.4	15.5	EAST SIDE BITTERROOT	6	70	82
					WEST SIDE BITTERROOT	4	74	95
					BITTERROOT RIVER BASIN	12	75	90

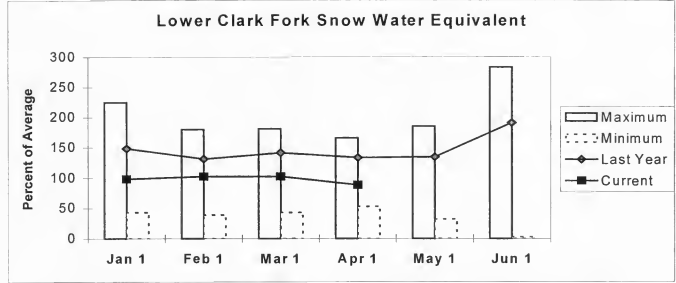
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The average is computed for the 1961-1990 base period.

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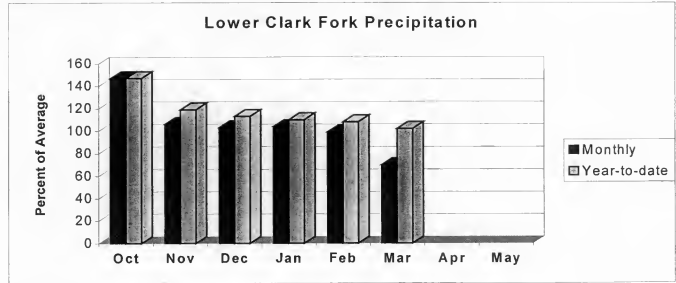
Lower Clark Fork River Basin

Snowpack conditions in the Lower Clark Fork River Basin were below average. Snow water content was 88 percent of average and 64 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum swe was in 1981; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1977. Average is for the period 1961 through 1990.

Mountain precipitation during March was 72 percent of average and 83 percent of last year. Valley precipitation during March was 62 percent of average and 101 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 102 percent of average and 82 percent of last year.



Noxon Rapids storage was 140 percent of average and 103 percent of last year.

Surface Water Supply Index (SWSI) was -1.5 in the Clark Fork River below Bitterroot River and -0.9 in the Clark Fork River below Flathead River.

LOWER CLARK FORK RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF) (% AVG.)		(1000AF)	(1000AF)	
CLARK FORK abv Missoula	APR-JUL	899	1090	1220	82	1350	1541	1487
	APR-SEP	1026	1237	1380	82	1523	1734	1681
CLARK FORK blw Missoula	APR-JUL	1821	2112	2310	83	2508	2799	2788
	APR-SEP	2032	2352	2570	83	2788	3108	3099
CLARK FORK at St. Regis (1)	APR-JUL	2146	2809	3110	84	3411	4074	3686
	APR-SEP	2389	3126	3460	85	3794	4531	4095
CLARK FORK nr Plains (1,2)	APR-JUL	7206	8632	9280	89	9928	11354	10450
	APR-SEP	7919	9488	10200	89	10912	12481	11470
THOMPSON nr Thompson Falls	APR-JUL	171	197	215	101	233	259	214
	APR-SEP	195	222	240	100	258	285	240
PROSPECT CREEK at Thompson Falls	APR-JUL	102	116	125	102	134	148	123
	APR-SEP	111	125	135	102	145	159	132
CLARK FK at Whitehorse Rpd (1,2)	APR-JUL	7990	9647	10400	89	11153	12810	11730
	APR-SEP	8748	10572	11400	88	12228	14052	12910

LOWER CLARK FORK RIVER BASIN
Reservoir Storage (1000 AF) - End of March

LOWER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - April 1, 2000

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
NOXON RAPIDS	335.0	323.4	315.4	231.3	LOWER CLARK FORK BASIN	13	64	88

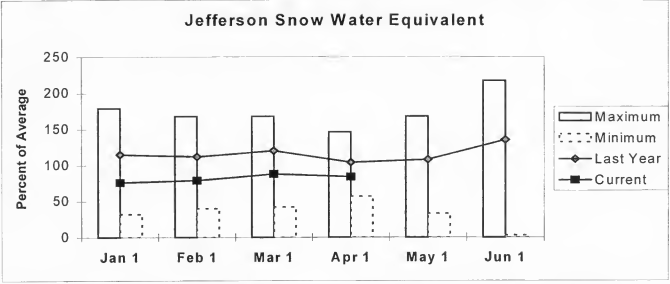
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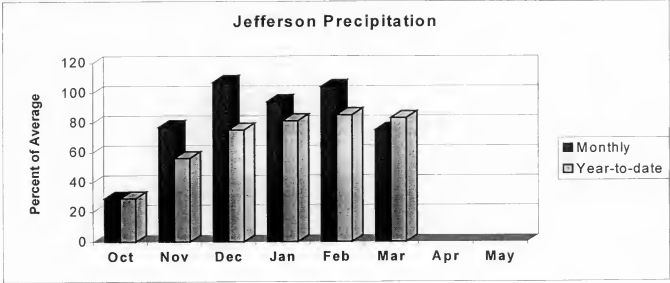
Jefferson River Basin

Snowpack conditions in the Jefferson River Basin were below average. Snow water content was 84 percent of average and 81 percent of last year. Call Road snow course was tied at the lowest of record with 1977 and 1994; Barker Lakes SNOTEL set a new record low with 9.6 inches snow water passing 1994 at 10.5 inches snow water; and Berry Meadow snow course was second lowest of record at 4.4 inches snow water behind 1998 with 4.2 inches.



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1977; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during March was 74 percent of average and 142 percent of last year. Valley precipitation during March was 88 percent of average and 118 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 83 percent of average and 78 percent of last year.



Lima storage was 134 percent of average and 96 percent of last year; Clark Canyon storage was 109 percent of average and 108 percent of last year; and Ruby River storage was 97 percent of average and 92 percent of last year.

Surface Water Supply Index (SWSI) was -0.4 in the Beaverhead River; -1.8 in the Ruby River; -1.5 in the Big Hole River; -2.1 in the Boulder River; and -1.4 in the Jefferson River as a whole.

JEFFERSON RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF) (% AVG.)		(1000AF)	(1000AF)	
LIMA RESERVOIR Inflow (2)	APR-JUL	32	55	70	72	86	108	97
	APR-SEP	31	57	75	71	93	119	105
BEAVERHEAD RIVER nr Grant	APR-JUL	36	68	90	68	112	144	132
	APR-SEP	35	74	100	65	126	165	155
BEAVERHEAD RIVER at Barretts (2)	APR-JUL	47	87	115	67	143	183	172
	APR-SEP	60	108	140	69	172	220	203
RUBY RIVER Reservoir Inflow	APR-JUL	34	47	55	66	63	76	83
	APR-SEP	42	56	65	66	75	89	99
BIG HOLE RIVER nr Melrose	APR-JUL	307	422	500	78	578	693	641
	APR-SEP	339	465	550	79	635	761	697
BOULDER RIVER nr Boulder	APR-JUL	15.3	42	60	71	78	105	85
	APR-SEP	17.0	46	66	73	86	115	91
WILLOW CREEK Reservoir Inflow	APR-JUL	5.3	6.4	11.0	62	15.6	22	17.7
	APR-SEP	6.0	7.1	12.5	63	17.9	26	20
JEFFERSON RIVER nr Three Forks (2)	APR-JUL	332	492	600	61	708	868	985
	APR-SEP	342	511	625	62	739	908	1012

JEFFERSON RIVER BASIN Reservoir Storage (1000 AF) - End of March					JEFFERSON RIVER BASIN Watershed Snowpack Analysis - April 1, 2000			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
LIMA	84.0	49.5	51.8	36.9	BEAVERHEAD	18	80	86
CLARK CANYON	255.6	167.6	154.9	153.6	RUBY	11	90	83
RUBY RIVER	38.8	30.4	32.9	31.2	BIGHOLE	21	78	86
					BOULDER	9	86	78
					JEFFERSON RIVER BASIN	49	81	84

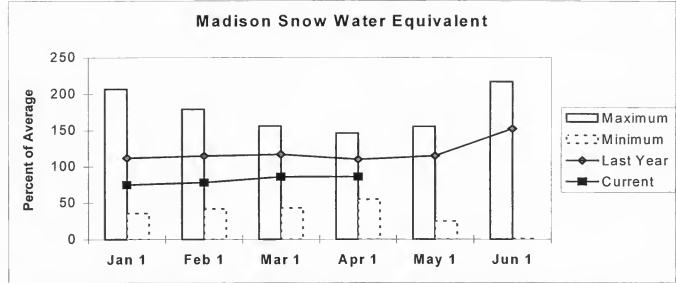
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The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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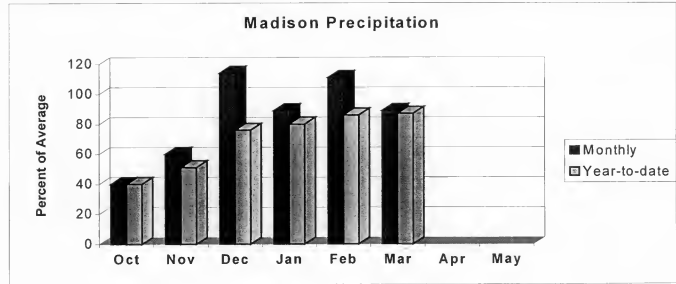
Madison River Basin

Snowpack conditions in the Madison River Basin were below average. Snow water content was 86 percent of average and 77 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1997 and minimum was in 1977; April maximum swe was in 1997 and minimum was in 1977; May maximum swe was in 1997 and minimum swe was in 1977; and June maximum swe was in 1995 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain and valley precipitation during March was 89 percent of average and 193 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 87 percent of average and 78 percent of last year.



Ennis Lake storage was 88 percent of average and 94 percent of last year and Hebgen Lake storage was 124 percent of average and 118 percent of last year.

Surface Water Supply Index (SWSI) was -0.4 for the Madison River.

MADISON RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions ----->>		Wetter ----->>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
HEBGEN Reservoir Inflow	APR-JUL	263	303	330	87	357	397	380
	APR-SEP	348	394	425	87	456	502	486
ENNIS Reservoir Inflow (2)	APR-JUL	460	525	570	86	615	680	662
	APR-SEP	583	662	715	86	768	847	831

MADISON RIVER BASIN					MADISON RIVER BASIN			
Reservoir Storage (1000 AF) - End of March					Watershed Snowpack Analysis - April 1, 2000			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ENNIS LAKE	41.0	29.2	31.0	33.2	MADISON abv HEBGEN LAKE	6	70	88
HEBGEN LAKE	377.5	304.7	258.3	246.6	MADISON blw HEBGEN LAKE	12	83	85
					MADISON RIVER BASIN	18	77	86

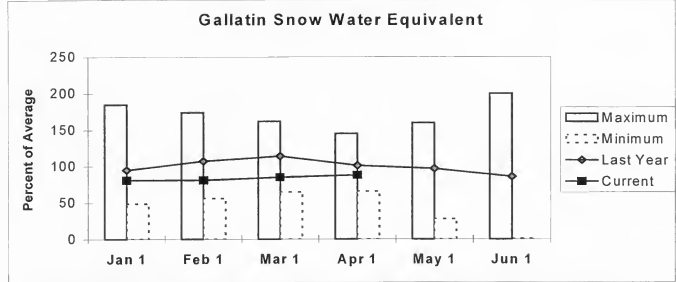
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The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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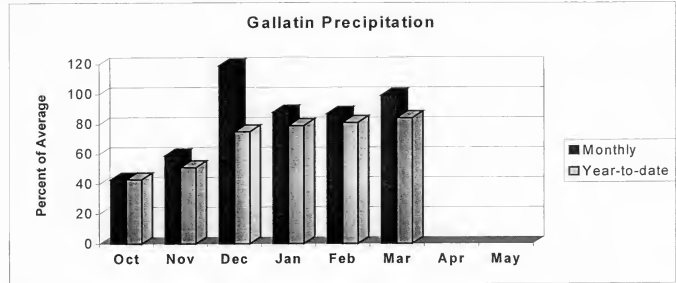
Gallatin River Basin

Snowpack conditions in the Gallatin River Basin were below average. Snow water content was 88 percent of average and 87 percent of last year.



January maximum swe was established in 1997 and minimum swe was in 1966; February maximum swe was in 1997 and minimum was in 1981; March maximum swe was in 1997 and minimum was in 1977 and 1987; April maximum swe was in 1997 and minimum was in 1987; May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1975 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during March was 111 percent of average and 217 percent of last year. Valley precipitation during March was 113 percent of average and 118 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 84 percent of average and 85 percent of last year.



Middle Creek storage was 94 percent of average and 86 percent of last year.

Surface Water Supply Index (SWSI) was -0.8 for the Gallatin River.

GALLATIN RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF) (% AVG.)		(1000AF)	(1000AF)	
GALLATIN RIVER nr Gateway	APR-JUL	309	357	390	89	423	471	440
	APR-SEP	367	422	460	89	498	553	518
HYALITE RESERVOIR Inflow	APR-JUL	14.8	17.6	19.5	85	21	24	23
	APR-SEP	17.0	20	22	85	24	27	26
HYALITE CREEK nr Bozeman (2)	APR-JUL	23	28	32	89	36	41	36
	APR-SEP	27	33	37	88	41	47	42
GALLATIN RIVER at Logan (2)	APR-JUL	264	363	430	86	497	596	498
	APR-SEP	314	425	500	86	575	686	581

GALLATIN RIVER BASIN Reservoir Storage (1000 AF) - End of March					GALLATIN RIVER BASIN Watershed Snowpack Analysis - April 1, 2000		
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average
	Year	This Year	Last Year	Avg			Average
MIDDLE CREEK	10.2	5.9	6.9	6.3	UPPER GALLATIN	7	85
					HYALITE	4	101
					BRIDGER	3	79
					GALLATIN RIVER BASIN	14	87
							88

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

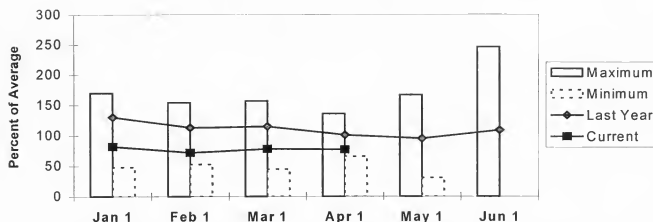
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Missouri Mainstem River Basin

Snowpack conditions in the Headwaters Missouri Mainstem River Basin were below average. Snow water content was 77 percent of average and 80 percent of last year. Ten Mile Middle snow course was tied with 1998 at 7.2 inches snow water for third lowest of record and behind 1941 with 5.5 inches snow water and 1940 with 5.8 inches snow water.

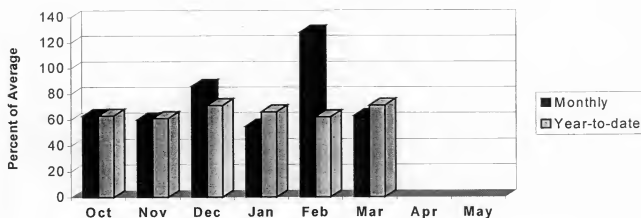
Headwaters Mainstem Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1961; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during March was 63 percent of average and 108 percent of last year. Valley precipitation during March was 64 percent of average and 186 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 71 percent of average and 71 percent of last year.

Headwaters Mainstem Precipitation



Canyon Ferry Lake storage was 97 percent of average and 100 percent of last year; Helena Valley storage was 110 percent of average and 94 percent of last year; Lake Helena storage was 109 percent of average and 100 percent of last year; Hauser & Helena storage was 104 percent of average and 100 percent of last year; Holter Lake storage was 120 percent of average and 100 percent of last year; and Fort Peck Lake storage was 101 percent of average and 99 percent of last year.

Surface Water Supply Index (SWSI) was -0.9 in the Missouri River above Canyon Ferry; -0.9 in the Missouri River below Canyon Ferry; +0.0 in the Missouri River above Fort Peck; and +0.1 in the Missouri River below Fort Peck.

MISSOURI MAINSTEM RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
MISSOURI RIVER at Toston (2)	APR-JUL	882	1348	1665	80	1982	2448	2075
	APR-SEP	1116	1607	1940	80	2273	2764	2416
PRICKLY PEAR CREEK nr Clancy	APR-JUL	8.7	13.9	17.5	76	21	26	23
	APR-SEP	10.1	16.3	21	76	25	31	27
GIBSON Reservoir Inflow	APR-JUL	330	390	430	90	470	530	478
	APR-SEP	371	433	475	90	517	579	526
MISSOURI RIVER at Fort Benton (2)	APR-JUL	1382	2006	2430	79	2854	3478	3087
	APR-SEP	1630	2404	2930	80	3456	4266	3678
MARIAS RIVER nr Shelby (2)	APR-JUL	233	321	380	85	439	527	447
	APR-SEP	247	335	395	81	455	543	487
MISSOURI RIVER at Virgelle (2)	APR-JUL	1492	2277	2810	78	3343	4128	3595
	APR-SEP	1865	2743	3340	79	4175	5060	4217
MISSOURI RIVER nr Landusky (2)	APR-JUL	1745	2552	3100	80	3648	4455	3897
	APR-SEP	2240	3105	3693	81	4281	5679	4580
MISSOURI RIVER below Fort Peck (2)	APR-JUL	1802	2581	3110	78	3639	4418	4015
	APR-SEP	2155	2997	3570	80	4143	5673	4467
LAKE SAKAKAWEA Inflow (2)	APR-JUL	5948	7119	7915	80	8711	9882	9897
	APR-SEP	6649	8067	9030	80	9993	12708	11346

MISSOURI MAINSTEM RIVER BASIN
Reservoir Storage (1000 AF) - End of March

MISSOURI MAINSTEM RIVER BASIN
Watershed Snowpack Analysis - April 1, 2000

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CANYON FERRY LAKE	2043.0	1447.0	1447.0	1489.0	HEADWATERS MAINSTEM	9	80	77
HELENA VALLEY	9.2	4.4	4.7	4.0	SMITH-JUDITH-MUSSELSHELL	16	84	78
LAKE HELENA	10.4	11.1	11.1	10.2	SUN-TETON-MARIAS	14	70	81
HAUSER & HELENA	61.9	63.6	63.2	61.0	MAINSTEM ab FT PECK RES	38	77	79
BOLTER LAKE	81.9	80.9	81.1	67.2	MILK RIVER BASIN	4	89	77
FORT PECK LAKE (MAF)	18.9	15.1	15.3	14.9	MISSOURI MAINSTEM BASIN	41	78	79

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

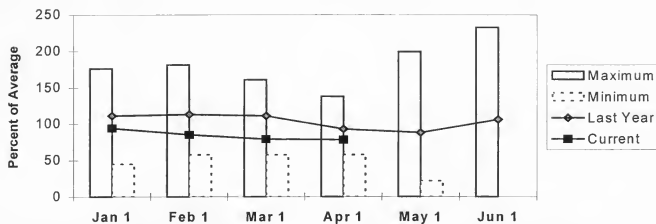
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Smith-Judith-Musselshell River Basins

Snowpack conditions in the Smith-Judith-Musselshell River Basins were below average. Snow water content was 78 percent of average and 84 percent of last year. Snow water content in the Smith River Basin was 79 percent of average and 77 percent of last year; in the Judith River Basin was 84 percent of average and 94 percent of last year; and in the Musselshell Basin River was 66 percent of average and percent of last year. Elk Peak snow course has set a new record low at 9.0 inches snow water passing 1973 which had 10.4 inches snow water; Grasshopper snow course was third lowest behind 1992 and 1961 respectively; and Johnson Park snow course was sixth lowest of record.

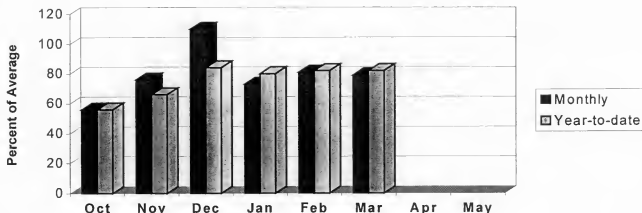
Smith-Judith-Musselshell Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe in 1988; February maximum swe was in 1978 and minimum swe was in 1987; March maximum swe was in 1978 and minimum swe was in 1987; April maximum swe was in 1970 and minimum swe was in 1992; and May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during March in the Smith-Belts was 65 percent of average and 137 percent of last year; in the Judith was 92 percent of average and 124 percent of last year; and in the Musselshell was 82 percent of average and 113 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 82 percent of average and 81 percent of last year.

Smith-Judith-Musselshell Precipitation



Smith River storage was 76 percent of average and 63 percent of last year; Bair storage was 53 percent of average and 58 percent of last year; Martinsdale storage was 103 percent of average and 88 percent of last year; and Deadman's Basin was 109 percent of average and 89 percent of last year.

Surface Water Supply Index (SWSI) was -1.4 in the Smith River and -2.7 in the Musselshell River.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(1000AF)	
SHEEP CREEK nr White Sulphur Spgs.	APR-JUL	12.6	15.2	17.0	94	18.8	21	18.1
	APR-SEP	14.2	17.4	19.5	93	22	25	21
SMITH RIVER abv Eagle Creek	APR-JUL	87	119	140	80	161	193	175
	APR-SEP	96	137	165	79	193	234	210
NF MUSSELSHELL nr Delpine	APR-JUL	2.23	3.64	4.60	96	5.56	6.97	4.80
	APR-SEP	2.69	4.30	5.40	96	6.50	8.11	5.60
SF MUSSELSHELL abv Martinsdale	APR-JUL	9.9	21	34	65	47	67	52
	APR-SEP	10.1	23	37	66	51	72	56
MUSSELSHELL at Harlowton (2)	APR-JUL	30	45	56	70	67	82	80
	APR-SEP	32	48	59	71	70	86	83
MUSSELSHELL nr Roundup (2)	APR-JUL	28	48	62	60	76	96	104
	APR-SEP	28	48	62	59	76	96	105

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Reservoir Storage (1000 AF) - End of March

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Watershed Snowpack Analysis - April 1, 2000

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
SMITH RIVER	10.6	5.6	8.9	7.4	SMITH	7	77	79
NEULAN CREEK		NO REPORT			JUDITH	8	94	84
BAIR	7.0	2.5	4.3	4.7	MUSSELSHELL	8	73	66
MARTINDALE	23.1	10.0	11.4	9.7	SMITH-JUDITH-MUSSELSHELL	16	84	78
DEADMAN'S BASIN	72.2	54.4	61.0	50.1				

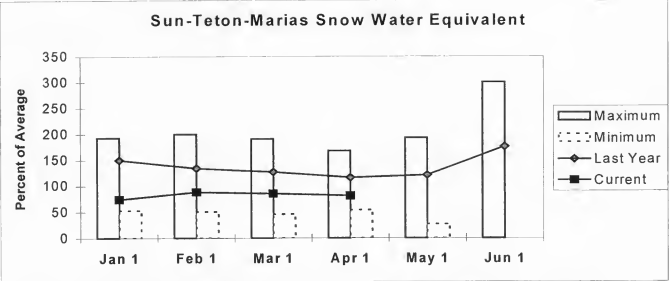
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

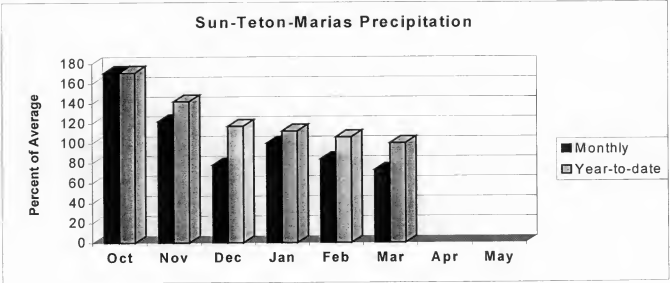
Sun-Teton-Marias River Basins

Snowpack conditions in the Sun-Teton-Marias River Basins were below average. Snow water content was 81 percent of average and 70 percent of last year. Snow water content in the Sun River Basin was 83 percent of average and 78 percent of last year; in the Teton River Basin was 79 percent of average and 64 percent of last year; and in the Marias River Basin was 78 percent of average and 65 percent of last year. Dupuyer Creek SNOTEL was fourth lowest of record behind 1995, 1998, and 1984 respectively.



January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1984; April maximum swe was in 1972 and minimum swe was in 1984; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during March in the Sun was 78 percent of average and 319 percent of last year; in the Teton was 71 percent of average and 98 percent of last year; and in the Marias was 72 percent of average and 88 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 100 percent of average and 91 percent of last year.



Gibson storage was 99 percent of average and 110 percent of last year; Pishkun storage was 108 percent of average and 99 percent of last year; Willow Creek storage was 25 percent of average and 25 percent of last year; Lower Two Medicine Lake storage was 159 percent of average and 172 percent of last year; Four Horns Lake storage was 104 percent of average and 157 percent of last year; Swift storage was 86 percent of average and 93 percent of last year; Lake Frances storage was 38 percent of average and 54 percent of last year; and Lake Elwell (Tiber) storage was 128 percent of average and 112 percent of last year.

Surface Water Supply Index (SWSI) was -0.6 in the Sun River; -1.5 in the Teton River; -2.2 in the Birch/Dupuyer Creeks; and +0.3 in the Marias River.

SUN-TETON-MARIAS RIVER BASINS
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<===== Drier =====>>>		Future Conditions		===== Wetter =====>>>		30-Yr Avg. (1,000AF)
		Chance Of Exceeding *						
		90% (1,000AF)	70% (1,000AF)	50% (Most Probable) (1,000AF)	(% AVG.)	30% (1,000AF)	10% (1,000AF)	
GIBSON Reservoir Inflow	APR-JUL	330	390	430	90	470	530	478
	APR-SEP	371	433	475	90	517	579	526
TWO MEDICINE RIVER nr Browning	APR-JUL	119	158	185	86	212	251	215
	APR-SEP	129	168	195	86	222	261	228
BADGER CREEK nr Browning (2)	APR-JUL	59	79	93	89	107	127	104
	APR-SEP	72	93	108	90	123	144	120
SWIFT RESERVOIR Inflow	APR-JUL	36	51	62	91	73	88	68
	APR-SEP	45	62	73	91	84	101	80
DUPUYER CREEK nr Valier	APR-JUL	2.6	6.2	12.6	81	19.0	28	15.5
	APR-SEP	3.1	7.4	14.2	82	21	31	17.4
CUT BANK CREEK at Cut Bank	APR-JUL	51	67	78	90	89	105	87
	APR-SEP	56	74	86	90	98	116	96
MARIAS RIVER nr Shelby (2)	APR-JUL	233	321	380	85	439	527	447
	APR-SEP	247	335	395	81	455	543	487
TETON nr Dutton	APR-JUL	2.7	24	38	64	52	73	59
	APR-SEP	6.3	28	42	62	57	78	68

SUN-TETON-MARIAS RIVER BASINS
Reservoir Storage (1000 AF) - End of March

SUN-TETON-MARIAS RIVER BASINS
Watershed Snowpack Analysis - April 1, 2000

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	This Year	Last Year	Avg				Last Yr	Average
GIBSON	99.1	50.1	45.6	50.5	SUN	7	78	83
PISHKUN	32.0	19.3	19.4	17.8	TETON	4	64	79
WILLOW CREEK	32.2	5.6	22.4	22.8	MARIAS	6	65	78
LOWER TWO MEDICINE LAKE	11.9	11.9	6.9	7.5	SUN-TETON-MARIAS	15	71	82
FOUR HORNS LAKE	19.2	13.0	8.3	12.5				
SWIFT	30.0	14.8	16.0	17.2				
LAKE FRANCES	112.0	27.0	49.7	71.6				
LAKE ELMWELL (TIBER)	1347.0	764.8	682.9	596.7				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

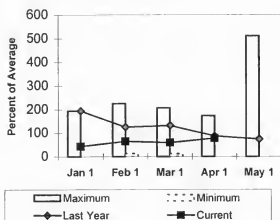
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

St. Mary and Milk River Basins

Snowpack conditions in the St. Mary and Milk River Basins were below average. Snow water content in the Saint Mary River Basin was 92 percent of average and 75 percent of last year. The Milk River Basin (Bearpaw Mountains) was 77 percent of average and 89 percent of last year.

Bearpaw Mountains Snow Water Equivalent

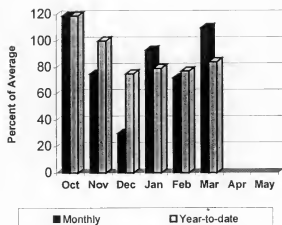


Bearpaw - January maximum swe was established in 1978 and minimum swe was in 1981; February maximum swe was 1978 and minimum was in 1973; March maximum swe was 1978 and minimum swe was 1981; April maximum swe was in 1975 and minimum swe was in 1983; May maximum swe was 1975 and the minimum has occurred in several years. Average is for the period 1961 through 1990.

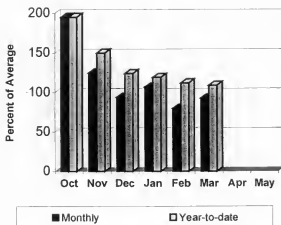
St. Mary - January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1992; May maximum swe was in 1992 and minimum swe was in 1977; and June maximum swe was in 1991 and minimum swe was 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation in the St. Mary River Basin during March was 93 percent of average and 122 percent of last year; and in the Milk River Basin during March was 110 percent of average and 215 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 100 percent of average and 84 percent of last year.

Milk Precipitation



St. Mary Precipitation



Lake Sherburne storage was 68 percent of average and 95 percent of last year; Fresno storage was 59 percent of average and 90 percent of last year; Beaver Creek storage was 123 percent of average and 84 percent of last year; and Nelson storage was 99 percent of average and 93 percent of last year.

Surface Water Supply Index (SWSI) was -1.5 for the Milk River.

ST. MARY and MILK RIVER BASINS
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<----- Drier ----->		Future Conditions		>----- Wetter ----->		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding *		30% (1000AF)	10% (1000AF)	
				50% (Most Probable) (1000AF)	(% AVG.)			
LAKE SHERBURNE Inflow	APR-JUL	71	79	85	79	91	99	107
	APR-SEP	84	94	100	80	106	116	125
ST. MARY RIVER nr Babb (2)	APR-JUL	252	287	310	79	333	368	395
	APR-SEP	304	343	370	80	397	436	463
ST. MARY RIVER at US/CAN Border (2)	APR-JUL	282	331	365	79	399	448	462
	APR-SEP	327	382	420	78	458	513	539
ST. MARY RESERVOIR Inflow (2,3)	MAY-SEP				-0			553
MILK RIVER at Western Crossing (3)	APR-JUL	4.0	8.2	16.0	44	24	35	37
	APR-SEP	4.0	8.5	17.2	43	26	39	40
MILK RIVER @ Milk River, AB (2,3)	APR-JUL	10.4	14.8	26	47	37	42	55
	APR-SEP	10.6	14.5	28	44	41	45	62
MILK RIVER at East Cross. (2,3)	APR-JUL	13.6	18.7	30	46	41	56	65
	APR-SEP	13.4	21	32	42	42	61	75
BEAVER CREEK near Havre	APR-JUL	1.04	2.00	3.00	32	5.79	9.89	9.50

ST. MARY and MILK RIVER BASINS
Reservoir Storage (1000 AF) - End of March

ST. MARY and MILK RIVER BASINS
Watershed Snowpack Analysis - April 1, 2000

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
LAKE SHERBURNE	64.3	16.9	17.8	24.8	ST. MARY	3	75	92
FRESNO	127.0	45.3	50.2	77.1	BEARPAW MOUNTAINS	4	89	77
BEAVER CREEK	3.5	2.7	3.2	2.2	CYPRESS HILLS, CANADA	0	0	0
NELSON	66.8	36.3	39.0	36.5	MILK RIVER BASIN	4	89	77
					ST. MARY & MILK BASINS	7	77	89

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

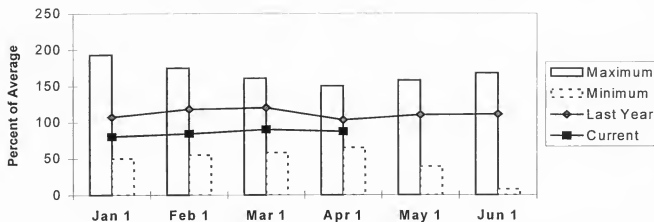
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Yellowstone River Basin

Snowpack conditions in the Upper Yellowstone River Basin were below average. Snow water content was 87 percent of average and 84 percent of last year. Cole Creek SNOTEL was fourth lowest of record behind 1961, 1978/1993, and 1999 respectively.

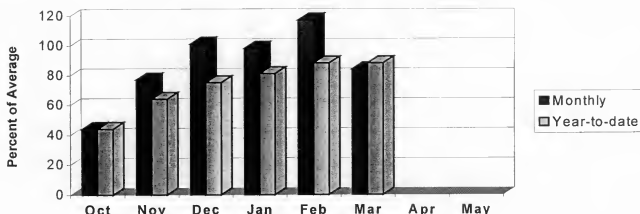
Upper Yellowstone Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1997 and minimum swe was in 1977; March maximum swe was in 1997 and minimum swe was in 1977; April maximum swe was in 1971 and minimum swe was in 1981; May maximum swe was in 1997 and minimum swe was in 1987; and June maximum swe was 1982 and minimum swe was in 1987 and 1994. Average is for the period 1961 through 1990.

Mountain precipitation during March was 84 percent of average and 131 percent of last year. Valley precipitation during March was 83 percent of average and 213 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 88 percent of average and 81 percent of last year.

Upper Yellowstone Precipitation



Mystic Lake storage was 32 percent of average and 83 percent of last year and Cooney storage was 117 percent of average and 117 percent of last year.

Surface Water Supply Index (SWSI) was -1.3 in the Yellowstone River above Livingston; -3.3 in the Shields River; -1.3 in the Boulder River; -0.9 in the Stillwater River; -2.3 in the Rock/Red lodge Creeks; -0.8 in the Clarks Fork River; and -1.2 in the Yellowstone River above Bighorn River.

UPPER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<----- Drier ----->		Future Conditions		----- Wetter ----->		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding *		30% (1000AF)	10% (1000AF)	
				50% (Most Probable) (1000AF)	(% AVG.)			
YELLOWSTONE at Lake Outlet	APR-JUL	330	390	430	75	470	530	573
	APR-SEP	472	545	595	75	645	718	792
YELLOWSTONE RIVER at Corwin Spgs.	APR-JUL	1121	1258	1350	84	1442	1579	1609
	APR-SEP	1358	1502	1600	83	1698	1842	1937
YELLOWSTONE RIVER near Livingston	APR-JUL	1351	1469	1550	84	1631	1749	1855
	APR-SEP	1606	1751	1850	83	1949	2094	2241
SHIELDS RIVER nr Livingston	APR-JUL	24	69	100	62	131	176	162
	APR-SEP	26	79	115	64	151	204	179
BOULDER RIVER at Big Timber	APR-JUL	204	246	275	82	304	346	335
	APR-SEP	213	262	295	81	328	377	364
MYSTIC LAKE Reservoir Inflow (2)	APR-JUL	47	53	58	94	62	68	61
	APR-SEP	63	70	75	95	80	87	79
STILLWATER RIVER nr Absarokee (2)	APR-JUL	333	397	440	88	483	547	498
	APR-SEP	404	473	520	88	567	636	593
CLARKS FORK RIVER nr Belfry	APR-JUL	405	456	490	92	524	575	532
	APR-SEP	446	499	535	91	571	624	590
COONEY RESERVOIR Inflow (2)	APR-JUL	4.9	19.8	30	64	40	55	47
	APR-SEP	11.0	27	37	65	48	63	57
YELLOWSTONE RIVER at Billings (2)	APR-JUL	2256	2699	3000	84	3301	3744	3577
	APR-SEP	3158	3384	3710	88	4036	4253	4211

UPPER YELLOWSTONE RIVER BASIN					UPPER YELLOWSTONE RIVER BASIN			
Reservoir Storage (1000 AF) - End of March					Watershed Snowpack Analysis - April 1, 2000			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MYSTIC LAKE	21.0	1.0	1.2	3.1	YELLOWSTONE ab LIVINGSTON	18	80	92
COONEY	27.4	19.8	16.9	16.9	SHIELDS	7	81	81
					BOULDER-STILLWATER	7	87	82
					CLARK'S FORK-ROCK CREEK	13	89	87
					UPPER YELLOWSTONE BASIN	41	84	87

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

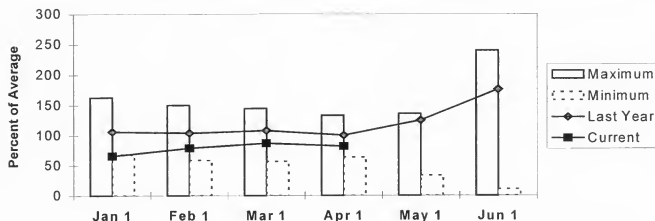
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Lower Yellowstone River Basin

Snowpack conditions in the Lower Yellowstone River Basin, in Wyoming, was below average. Snow water content was 82 percent of average and 83 percent of last year. Blue Ridge snow course was fourth lowest of record behind 1940, 1945/1960, and 1941 respectively; Grannier Meadows snow course was sixth lowest of record; Middle Fork snow course was second lowest of record with 1.6 inches snow water behind 1978/1982 which had 0 inches snow water; St. Lawrence Alternate SNOTEL set a new low record with 4.6 inches snow water dropping below 1989 which had 4.8 inches snow water; Townsend Creek SNOTEL was fourth lowest behind 1978, 1982/1989, and 1976 respectively; Carter Mountain snow course was fifth lowest of record behind 1999, 1966, 1994, and 1989/1993 respectively; Timber Creek SNOTEL set a new low with 2.8 inches snow water below 1989 which had 3.1 inches snow water; and Soldier Park snow course was fourth lowest of record behind 1953, 1981, and 1955 respectively.

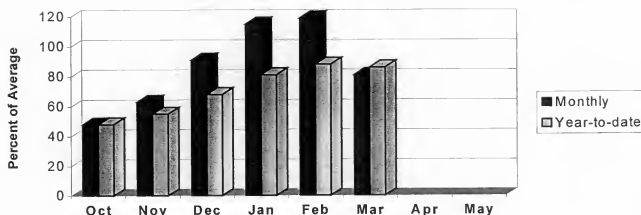
Lower Yellowstone Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1981; February maximum swe was in 1997 and minimum swe was in 1981; March maximum swe was in 1986 and minimum swe was in 1977; April maximum swe was in 1986 and minimum swe was in 1981; May maximum swe was in 1997 and minimum swe was in 1981; and June maximum swe was in 1995 and minimum swe was in 1994. Average is for the period 1961 through 1990.

Mountain and valley precipitation during March was 80 percent of average and 149 percent of last year. Mountain and valley water year precipitation, beginning October 1, 1999, was 85 percent of average and 80 percent of last year.

Lower Yellowstone Precipitation



Bighorn Lake storage was 114 percent of average and 117 percent of last year and Tongue River storage was 102 percent of average and 300 percent of last year.

Surface Water Supply Index (SWSI) was -0.7 in the Bighorn River below Bighorn Lake; -0.9 in the Little Bighorn River; -1.0 in the Yellowstone River below Bighorn River; -1.0 in the Tongue River; and -2.8 in the Powder River.

LOWER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - April 1, 2000

Forecast Point	Forecast Period	<<===== Drier =====>>		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance of Exceeding *						
		90%	70%	50% (Most Probable)		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
YELLOWSTONE RIVER at Billings (2)	APR-JUL	2256	2699	3000	84	3301	3744	3577
	APR-SEP	3158	3384	3710	88	4036	4253	4211
BIGHORN RIVER nr St. Xavier (2)	APR-JUL	558	821	1000	61	1179	1442	1645
	APR-SEP	646	916	1100	61	1284	1554	1794
LITTLE BIGHORN RIVER nr Hardin	APR-JUL	56	85	105	75	125	154	140
	APR-SEP	62	93	115	73	137	168	157
TONGUE RIVER RESERVOIR Inflow (2)	APR-JUL	101	148	180	78	212	259	230
	APR-SEP	122	171	205	80	239	288	256
YELLOWSTONE RIVER at Miles City (2)	APR-JUL	2745	3558	4110	76	4662	5475	5431
	APR-SEP	3769	4377	4960	79	5543	6155	6281
POWDER RIVER at Moorehead	APR-JUL	29	89	130	62	171	231	211
	APR-SEP	42	103	145	63	187	248	232
POWDER RIVER near Locate	APR-JUL	44	98	135	54	172	226	252
	APR-SEP	43	107	150	54	193	257	276
YELLOWSTONE RIVER nr Sidney (2)	APR-JUL	2658	3755	4500	76	5245	6342	5925
	APR-SEP	3816	4432	5280	78	6128	6814	6814

LOWER YELLOWSTONE RIVER BASIN					LOWER YELLOWSTONE RIVER BASIN			
Reservoir Storage (1000 AF) - End of March					Watershed Snowpack Analysis - April 1, 2000			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BIGHORN LAKE	1356.0	912.0	782.6	798.5	WIND RIVER (Wyoming)	17	71	74
TONGUE RIVER	68.0	36.9	12.3	36.1	SHOSHONE RIVER (Wyoming)	7	71	86
					BIGHORN RIVER (Wyoming)	21	81	87
					LITTLE BIGHORN (Wyoming)	3	111	92
					TONGUE RIVER (Wyoming)	9	112	88
					POWDER RIVER (Wyoming)	9	102	85
					LOWER YELLOWSTONE BASIN (45	85	82

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.





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Bozeman, MT 59715



Montana
Basin Outlook Report
Natural Resources Conservation Service
Bozeman, MT

